

Claims

What is claimed is:

1. A biologically pure strain of *E. coli* which is  
5 characterized as comprising an *Hte* mutation and by more  
efficient transformation with foreign plasmids than *E. coli*  
that lack an *Hte* mutation.

*Sub A1* 2. A strain according to claim 1 that has been derived  
10 from a strain having the identifying characteristics of ATCC  
No 55962.

3. A method of preparing gram negative bacteria of  
improved competence, said method comprising the steps of:  
15 a) transferring a polynucleotide encoding an *Hte*-  
region into gram negative bacterial cells; and  
b) treating the cells from (a) with a competency  
inducing procedure  
whereby competent cells are produced.

20 4. A method according to claim 3, wherein said bacteria  
is *E. coli*.

*Sub A2* 5. A method according to claim 3, wherein the  
25 competency inducing procedure is a standard high competency  
induction procedure employing the step of washing the cells  
with a buffer comprising at least two of the group consisting  
of potassium acetate, KCl, MnCl<sub>2</sub>, CaCl<sub>2</sub>, glycerol, rubidium  
chloride, and hexamine cobalt chloride.

30 6. A method according to claim 4, wherein said *E. coli*  
have the genotype  $\Delta(mcrA)183 \Delta(mcrCB-hsdSMR-mrr)173$  endA1  
*supE44 thi-1 recA1 gyrA96 relA1 lac tet<sup>R</sup> Hte\*{F' proAB*  
*lacI<sup>Q</sup>ZΔM15 Tn10(Tet<sup>R</sup>) Amy Cam<sup>R</sup>}*.

35 *Sub A3* 7. A method according to claim 3, said method further  
comprising the step of freezing the competent cells.

8. Cells according to claim 1, wherein said cells have been rendered competent.

Sub A4

9. Competent cells according to Claim 8, wherein said 5 cells have been made competent by the standard high competency induction procedure employing the step of washing the cells with a buffer comprising at least one of the group consisting of potassium acetate, KCl, MnCl<sub>2</sub>, CaCl<sub>2</sub>, glycerol, rubidium chloride, and hexamine cobalt chloride.

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10. Competent cells according to Claim 9, wherein said cells have been frozen.

11. Competent cells produced by the method of any one of 15 claims 3 through 7.

12. The use of cells according to claim 11 to clone or subclone heterologous genetic material of interest.

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13. The use of cells according to any one of claims 1 or 2 to clone or subclone heterologous genetic material of interest.

25 Add A5

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